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# United States Patent [19]

### Matias et al.

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# [54] METHOD AND APPARATUS FOR PARALLEL PROCESSING OF A DOCUMENT IMAGE

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#### [57] ABSTRACT

A reproduction apparatus such as a copier/printer includes a plurality of job image buffers (JIBs). Each JIB includes a compressor for compressing rasterized image data, a memory store for storing compressed rasterized image data and an expander for expanding the compressed rasterized image data. An electronic writer has a plurality of writing components, with each component being associated with a respective segment of an image to be simultaneously recorded. A writer interface is operatively connected to the JIBs and the writing components for simultaneously outputting to the writing components data for a respective image segment to be recorded by its respective writing component. A controller controls flow of data to the JIBs so that each of the plural JIBs receives data for only one respective segment of each page of image data. The controller determines which of the JIBs has the most available memory capacity for storing a segment of a page and directs flow of data of a segment of a page meeting a criterion as most busy to the JIB determined to have the most available memory capacity. In an alternative embodiment, the controller rotates the assignment of control segments of pages to different JIBS so that the center segments, which are likely to be the busiest segments and thus least compressible, are not assigned always to the same JIB.

#### 25 Claims, 5 Drawing Sheets

